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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,652	12/31/2003	Hong Ho Kim	11037-171-999	1629

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EXAMINER	
JOYCE, WILLIAM C	

ART UNIT	PAPER NUMBER
3682	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,652	KIM, HONG HO	
	Examiner	Art Unit	
	William C. Joyce	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-9 and 11-16 is/are rejected.

7)☒ Claim(s) 10 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is the First Office Action in response to the above identified patent application filed on December 31, 2003.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements filed December 31, 2003 and June 5, 2006 fail to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, the limitation "a second through hole" is not fully understood because the claim fails to define a first hole. Is applicant attempting to define both a first and second hole? Note, claim 2 defines a first through hole.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Alber et al. (USP 5,704,251).

Alber et al. discloses a shift control apparatus for a transmission comprising: a gear shift lever device configured to undergo movement in a first direction and in a second direction; a plurality of shift lugs disposed within a transmission and configured to realize specific speed ratios according to its longitudinal movement; a housing; a control shaft (27) disposed within the housing and provided with at least one control finger (28) at a lower portion thereof, the control shaft configured to be able to move in a longitudinal direction thereof such that the control finger can be positioned on the shift lugs, and the control shaft configured to be able to rotate such that the control shaft can move the shift lugs; a select control assembly (Fig. 5) connected to the gear shift lever and the control shaft such that the control shaft moves in the longitudinal direction thereof responding to a movement of the gear shift lever in the first direction; and a shift

control assembly (Fig. 5) connected the gear shift lever and the control shaft such that the control shaft rotates responding to a movement of the gear shift lever in the second direction, wherein a pair of coil springs (84,85) support the control shaft in opposite directions.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 6-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chretien (DE 691 06 331) in view of Crack (USP 4,916,964).

Chretien discloses a shift control apparatus for a transmission comprising: a plurality of shift lugs (16,18) disposed within a transmission and configured to realize specific speed ratios according to its longitudinal movement; a housing (not shown); a control shaft (20) disposed within the housing and provided with at least one control finger (26) at a lower portion thereof, the control shaft configured to be able to move in a longitudinal direction thereof such that the control finger can be positioned on the shift lugs, and the control shaft configured to be able to rotate such that the control shaft can move the shift lugs; a select control assembly (32,34) connected to the gear shift lever and the control shaft such that the control shaft moves in the longitudinal direction thereof responding to a movement of the gear shift lever in the first direction; and a shift

control assembly (38,40) connected the gear shift lever and the control shaft such that the control shaft rotates responding to a movement of the gear shift lever in the second direction.

Chretien does not clearly teach the cable arrangement attached to the control assemblies, the control assemblies having shafts extending through holes in the housing, wherein the shift lever actuates the control assemblies for selecting the transmission speeds.

The prior art to Crack teaches a control arrangement having a shift lever (1) connected to control assemblies (14,15,32,33) via shift cables (9,27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to actuate the control assemblies of Chretien with the cable arrangement of Crack, motivation being to operate the transmission from a remote location that is spaced at a predetermined distance from the transmission.

With respect to claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the shift shoe of plastic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crack (USP 4,916,964) in view of Fujii (USP 5,063,810).

Crack disclose a transmission shifting arrangement having a shift lever (1), control assemblies (14,15,32,33), the control assemblies having control shafts (15,33) extending into the transmission housing, the shift lever being connected to the control assemblies by cables (9,27).

Crack does not teach a particular linkage arrangement disposed inside the transmission for shifting the gears.

The prior art to Fujji teaches a control assembly arrangement for shifting gears within a transmission, the control assembly having a select control arrangement (20,22,24) formed with a plate (20 in Fig. 3)) with a pin (40), the pin having a shoe (36) for longitudinally moving a shift shaft (12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shifting arrangement of Crack with the select control arrangement of Fujii, motivation being to axially move a shift shaft for selecting a speed of a transmission.

With respect to claim 3, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the select shoe of plastic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

10. Claims 1 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crack (USP 4,916,964) in view of Okubo et al. (USP 4,608,877).

Crack disclose a transmission shifting arrangement having a shift lever (1), control assemblies (14,15,32,33), the control assemblies having control shafts (15,33) extending into the transmission housing, the shift lever being connected to the control assemblies by cables (9,27).

Crack does not teach a particular linkage arrangement disposed inside the transmission for shifting the gears.

The prior art to Okubo et al. teaches a linkage arrangement disposed inside a transmission having a shift shaft (7) having a pair of shift fingers (12,13), wherein one of the shift fingers (13) is configured to shift a reverse gear.

It would have been obvious to one of ordinary skill in the art to modify the shifting arrangement of Crack with a shift linkage disposed inside the transmission housing, as taught by Okubo et al., motivation being to shift the transmission gears.

Allowable Subject Matter

11. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the shift arrangement of Backus ('820), Hurlow ('211), Park ('722), Ubagai ('239). Herzog et al. ('993), Certeza ('536).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

William C. Joyce 11/20/06
William C. Joyce